IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Original) A method of detecting a malfunction in an electric injection-molding machine, the method being applied to the step of ejecting a molded product by pushing an ejector pin out of a die, comprising:

obtaining a pattern showing torque of an ejector-pin driving motor versus time or a position of an ejector pin when a molded product is normally removed;

setting in advance at least one monitoring zone based on the pattern and the upper and lower limits of torque in each of the monitoring zones; and

monitoring a torque value in each of the monitoring zones during the ejecting step, judging that a malfunction occurs when the torque value falls outside the upper and lower limits of the monitoring zone, and raising an alarm.

2. (Original) A method of detecting a malfunction in an electric injection-molding machine, the method being applied to the step of ejecting a molded product by pushing an ejector pin out of a die, comprising:

obtaining a pattern showing torque of an ejector-pin driving motor versus time or a position of an ejector pin when a molded product is normally removed;

setting in advance at least one monitoring zone based on the pattern and the upper and lower limits of torque in each of the monitoring zones;

monitoring a torque value in each of the monitoring zones during the ejecting step, judging that a malfunction occurs when the torque value falls outside the upper and lower limits of the monitoring zone, and counting the number of malfunctions; and

raising an alarm when the number of malfunctions in a single ejection step reaches a predetermined number.

3. (Currently amended) A method of detecting a malfunction in an electric injection-molding machine, the method being applied to the step of ejecting a molded product by pushing an ejector pin out of a die, comprising:

obtaining a pattern showing torque of an ejector-pin driving motor versus time or a position of an ejector pin when a molded product is normally removed;

setting in advance at least one monitoring zone based on the pattern and the upper and lower limits of torque in each of the monitoring zones;

monitoring a torque value in each of the monitoring zones during the ejecting step, judging that a malfunction occurs when the torque value falls outside the upper and lower limits of the monitoring zone, and counting the number of malfunctions; and

raising an alarm when the number of malfunctions occurring within a predetermined time reaches a predetermined number.

4. (Original) A method of detecting a malfunction in a hydraulic injection-molding machine, the method being applied to the step of ejecting a molded product by pushing an ejector pin out of a die, comprising:

obtaining a pattern showing hydraulic pressure of an ejector-pin driving hydraulic pump versus time or a position of an ejector pin when a molded product is normally removed;

setting in advance at least one monitoring zone based on the pattern and the upper and lower limits of hydraulic pressure in each of the monitoring zones; and

monitoring a hydraulic pressure value in each of the monitoring zones during the ejecting step, judging that a malfunction occurs when the hydraulic pressure value falls outside the upper and lower limits, and raising an alarm.

5. (Original) A method of detecting a malfunction in an hydraulic injection-molding machine, the method being applied to the step of ejecting a molded product by pushing an ejector pin out of a die, comprising:

obtaining a pattern showing hydraulic pressure of an ejector-pin driving hydraulic pump versus time or a position of an ejector pin when a molded product is normally removed;

setting in advance at least one monitoring zone based on the pattern and the upper and lower limits of hydraulic pressure in each of the monitoring zones;

monitoring a hydraulic pressure value in each of the monitoring zones during the ejecting step, judging that a malfunction occurs when the hydraulic pressure value falls outside the upper and lower limits, and counting the number of malfunctions; and

raising an alarm when the number of malfunctions in a single ejection step reaches a predetermined number.

6. (Original) A method of detecting a malfunction in a hydraulic injection-molding machine, the method being applied to the step of ejecting a molded product by pushing an ejector pin out of a die, comprising:

obtaining a pattern showing hydraulic pressure of an ejector-pin driving hydraulic bump time or a position of an ejector pin when a molded product is normally removed;

setting in advance at least one monitoring zone based on the pattern and the upper and lower limits of hydraulic pressure in each of the monitoring zones; and

monitoring a hydraulic pressure value in each of the monitoring zones during the ejecting step, judging that a malfunction occurs when the hydraulic pressure value falls outside the upper and lower limits of the monitoring zone, and counting the number of malfunctions; and

raising an alarm when the number of malfunctions occurring within a predetermined time reaches a predetermined number.